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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/807,686 | 04/30/2002 | Robert A Leydier | 76.0531 | 2354 |
| 41754 | 7590 | 11/15/2006 | EXAMINER | |
| ANDERSON & JANSSON L.L.P. 9501 N. CAPITAL OF TX HWY #202 AUSTIN, TX 78759 | | | CRANE, SARA W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2811 | |

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/807,686

Applicant(s)

LEYDIER ET AL.

Examiner

Sara W. Crane

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-7,10,12-17,19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,14,15,17,19 and 20 is/are rejected.
- 7) ☒ Claim(s) 5-7, 10, 12-13, 16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 14-15, 17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cloud et al. in view of Ishikawa et al.

With respect to claim 1, Cloud et al. teaches with respect to for example figure 3 a die (or chip) 12 (figure 1) having a top face with active circuits (column 5, lines 48-56), a sealing layer 34, and an additional die layer 30 above the sealing layer. The die material is silicon (column 3, line 30), so the top die layer would be "an additional layer of silicon" covering the active face of the lower die. CPU and memory circuits are noted at column 1, lines 33-43, and would have been obvious in order to implement a circuit requiring these features. Ishikawa et al., figures 1-2 and 6, teaches at the top of the device a light shielding layer 5, or 61, which includes a metal deposition layer (column 4, lines 55-60). The necessity of such a shielding layer for circuits containing memory is noted in the paragraph spanning columns 1 and 2. It would have been obvious to include such a light shielding layer atop the device of Cloud figure 4, in order to provide protection from incident light desired by Ishikawa et al. Protection from incident light would inherently include protection from infrared light wavelengths, because metal blocks infrared, and because infrared defines a frequency range of light. A light blocking layer including metal, on top of a silicon layer, is understood to be encompassed by the claim language "the additional layer of silicon *comprising* physical

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means for providing physical protection . . .," because dependant claims 14-17 indicate that the comprising language is intended to encompass a metal layer on the silicon.

With respect to claims 14 and 17, the Ishikawa teaching, of for example figure 6, is to place the light blocking metal deposition layer on the top of the device. With respect to claims 15 and 19, the layer thicknesses would have been obvious in order to obtain the light blocking ability consistent with such thicknesses. With respect to claim 20, it would have been obvious to use a chip in a portable article such as a computer, because the chip is small and light in weight.

Allowable Subject Matter

Claims 5-7, 10, 12-13, and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The specific infrared blocking means set forth in these claims is not taught or suggested in the art.

Conclusion

Applicant's arguments have been considered, but are moot in view of the Cloud et al. reference, which shows the top surface of a die sealed to an overlying die made of silicon.

Sakai et al. teaches that doped silicon acts as a light shield. Yamaka teaches that metal blocks infrared.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Crane, whose telephone number is (571) 272-1652.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "Sara W. Crane". The signature is fluid and cursive, with the first name "Sara" and last name "Crane" clearly distinguishable.

Sara W. Crane
Primary Examiner
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